CLAIMS

1. An electric power generator equipped with: a hydrogen generator comprising a reformer, a shifter, a purifier, a gas pathway connecting said reformer, said shifter and said purifier, and a generated gas outlet; a polymer electrolyte fuel cell for generating electric power by using a generated gas from said hydrogen generator and an oxidant gas; a burner for heating at least said reformer; a flow rate controller for controlling a supply amount of a burning fuel to said burner; a communicating pathway connecting said flow rate controller and said burner; a joint where a residual fuel gas exhausted from a fuel electrode of said fuel cell and/or an incompletely generated gas from said hydrogen generator are combined with said burning fuel in said communicating pathway;

characterized by further comprising a pressure-transferring pipe which transfers a pressure between said joint and said flow rate controller to said flow rate controller, said flow rate controller controlling said supply amount of said burning fuel on the basis of said pressure.

2. The electric power generator in accordance with claim 1, characterized in that said flow rate controller comprises a valve, which moves by said pressure between said joint and said flow rate controller.

3. The electric power generator in accordance with claim 1, characterized in that said hydrogen generator is equipped with a condensed water outlet.

4. The electric power generator in accordance with claim 3, characterized in that said hydrogen generator is equipped with said condensed water outlet in at least one selected from the group consisting of said reformer, said shifter, said purifier, said gas pathway and said generated gas outlet.

5. The electric power generator in accordance with claim 3, characterized in that said condensed water outlet is equipped with a switching valve.

6. The electric power generator in accordance with claim 1, characterized in that each of said shifter and said purifier is equipped with a cooler and a temperature detector.

7. The electric power generator in accordance with claim 6, characterized in that at least one of said shifter and said purifier has a multistage structure and each stage is equipped with said cooler and said temperature detector.

8. A method for operating an electric power generator equipped with: a hydrogen generator comprising a reformer, a shifter, a purifier, a gas pathway connecting said reformer, said shifter and said purifier, and a generated gas outlet; a polymer electrolyte fuel cell for generating electric power by using a generated gas from said hydrogen generator and an oxidant gas; a burner for heating at least said reformer; a flow rate controller for controlling a supply amount of a burning fuel to said burner; a communicating pathway connecting said flow rate controller and said burner;

a joint where a residual fuel gas exhausted from a fuel electrode of said fuel cell and/or incompletely generated gas from said hydrogen generator are combined with said burning fuel in said communicating pathway;

said method being characterized by supplying a raw material fuel and water to said reformer when the temperature of said gas pathway between said reformer and said shifter reaches a predetermined lower limit 1 after operating said burner.

9. The method for operating an electric power generator in accordance with claim 8, characterized in that said lower limit 1 is 100°C to 400 °C.

10. The method for operating an electric power generator in accordance with claim 8, characterized by supplying water between said reformer and said shifter such that the temperature between said reformer and said shifter does not exceed a predetermined upper limit.

11. The method for operating an electric power generator in accordance with claim 10, characterized in that said upper limit is 250°C to 500 °C.

12. The method for operating an electric power generator in accordance with claim 8, characterized by judging that said electric power generator is in the normal operation condition when the temperature at the downstream of said purifier is not higher than a predetermined lower limit 2.

13. The method for operating an electric power

generator in accordance with claim 12, characterized in that said lower limit 2 is 100°C to 500°C.

14. The method for operating an electric power generator in accordance with claim 8, characterized by controlling the temperature of said reformer by heating with said burner and controlling the temperature of said shifter and said purifier by cooling.

15. The method for operating an electric power generator in accordance with claim 8, characterized by increasing or decreasing a supply amount of said raw material fuel and water to said reformer after increasing or decreasing a supply amount of said generated gas to said fuel cell according to increase or decrease of an amount of generated electric power by said fuel cell.